Open Data Guide 4/22/2015

This guide provides a list of UDOT's public data layers offered for download through the Open Data site: http://udot.uplan.opendata.arcgis.com/

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AADT (2013) - This dataset contains traffic statistics collected by the Transportation Monitoring Unit and developed and analyzed by the Traffic Analysis Section of the Systems Planning & Programming Division of the Utah Department of Transportation for 2013 only. Please see the Data Assessment Form for more information.

AADT (Historic 1981- 2012) - This dataset contains traffic statistics collected by the Transportation Monitoring Unit and developed and analyzed by the Traffic Analysis Section of the Systems Planning & Programming Division of the Utah Department of Transportation for the years 1981-2012. Please see the Data Assessment Form for more information.

Advanced Traffic Management System (ATMS) - This dataset contains advanced traffic management system (ATMS) devices located along Utah state highways. Descriptive information includes device name (CCTV, Cabinet, HAR, RWIS, Ramp Meter, TMS, VMS). Also included is location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. Please see the Data Assessment Form for more information.

Airport Pavement Condition - This dataset is used to help manage Utah airport pavements. The pavement condition data highlights pavement rehabilitation and reconstruction needs. For more information please see the Data Assessment Form.

Automatic Traffic Recorder Locations - This dataset contains the automatic traffic recorder (ATR) locations in Utah. This dataset is maintained by the Traffic Analysis Section of the Systems Planning and Programming Division of UDOT. Please see the Data Assessment Form for more information.

Barriers Inventory – This dataset contains barrier inventory along state routes. Descriptive information includes location, type, height, end treatments, post type and side of road. Dataset can be used in conjunction with Median and Island data. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR feature inventory. For more information please see the Data Assessment Form.

Bike Lanes – This dataset displays bike Lane locations along state routes. This file indicates where a bike lane with paint striping is present only. View pavement message file for other bike lane indication features. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR feature inventory. For more information please see the Data Assessment Form.

Billboard Assemblies – This dataset contains billboard assemblies located along Utah state highways. Descriptive information includes sign owner and permit number (if applicable), billboard type, and total faces. Information also includes location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

Billboard Faces – This dataset contains billboard faces located along Utah state highways. Descriptive information includes height, width, and distance from pavement. Information also includes location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

Cattle Guards Inventory - This dataset displays the Cattle Guard Inventory from Operations Management System (OMS). This dataset is refreshed monthly. For more information please see the Data Assessment Form.

Crash Rate Score - The Crash Rate Score indicates which road segments have the highest crash rate when compared to the statewide average crash rate for roadways of similar functional class and traffic volume. The crash rate is calculated from the most recent 3 years of data (2011-2013), while statewide average crash rates reflect 5 years of data (2009-2013). Crash Rate Scores are reported on a 0 to 5 scale with 5 representing the group of road segments with the highest ratio of actual crash rate vs statewide average crash rate (weighted by roadway center line miles). For more information please see the Data Assessment Form. To download this data please visit UDOT's Open Data Site.

Crashes per Mile Score - The Crashes per Mile Score indicates which road segments have the highest number of total crashes per mile per year (2011-2013). Crashes per Mile Scores are reported on a 0 to 5 scale with 5 representing the group of road segments with the most crashes per mile per year across the state of Utah (weighted by roadway center line miles). For more information please see the Data Assessment Form. For questions about the data please contact W. Scott Jones at wsjones@utah.gov. To download this data please visit UDOT's Open Data Site.

Deflection - Deflection data describes pavement performance. Measures include the falling-weight deflectometer (FWD) and subgrade modulus. Data source is Pavement. For more information please see the Data Assessment Form.

Driveways - This dataset contains driveways located along Utah state highways. Descriptive information includes driveway type (Major/Minor, Commercial, Residential, Industrial), width, and presence of sidewalk. Also included is location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

EPM Projects - Project data from ePM (Electronic Project Management). This data includes point and line layers for UDOT's roadway projects stored in ePM. This is a LRS derived layer with a daily refresh cycle. For more information please see the Data Assessment Form.

EPM with ProjectWise Links - These layers provide access to ProjectWise data by Electronic Program Management (ePM) Project. The data has a daily refresh cycle. Coverage includes projects from both the active and archive Data Sources within ProjectWise, including UDOT Projects and Projects to be Archived folders. For more information please see the Data Assessment Form.

Facility Inventory - Facilities inventory data from the Operations Management System (OMS). Facility types include: brake check areas, road-closed gates, material storage locations, offices, port of entries, rest areas, runaway truck lanes, view areas, and welcome centers. This layer is updated as needed. For more information please see the Data Assessment Form.

Facility Type - Type of Facility refers to the operational characteristic of the roadway by code: (1) one-way, (2) two-way, (3) couplet, (4) ramp, (5) non mainline, (6) non inventory direction, and (7) planned/unbuilt. This data comes from the Highway Performance Monitoring System (HPMS). This dataset is current as per the 2013 HPMS submittal. For more information please see the Data Assessment Form.

Fencing Inventory – Dataset of fences from Operations Management System (OMS). Fence types include: cattle, chain link, decorative metal, field, miscellaneous, and wildlife. This dataset is updated as needed. For more information please see the Data Assessment Form.

Functional Class - The Functional Classification Dataset defines the classes into which streets and highways are grouped, based on their function within the overall roadway network. For information please see the Data Assessment Form.

Intersection Type - Intersection dataset contains location information of any cross street location to a state route. At state route to state route intersections both routes are identified. Where cross streets are local, road names are left anonymous. There is also a flag for signalized intersections within the data. Location information includes x,y and mile post. Data was collected in the spring of 2014 via LiDAR inventory. This data is best viewed with signal poles, signal cabinets, and power pedestals. For more information please see the Data Assessment Form.

Lanes - This dataset contains lane configuration and count for Utah state highways. Descriptive information includes lanes by type (Aux, Thru, Decel, Accel, Turn, Passing) and count of each type lane. Information also includes location information including x, y and route & milepost. This dataset is a MANDLI data layer. Mandli data was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

LRS Feature Inventory - This dataset approximates the locations of the Highway Reference Features along the UDOT State Route System. Reference features include: gates, maintenance stations, ports of entry, rest areas, roundabouts, structures such as culverts, sub stations, view areas, etc. It was created by deriving a location from a polylineM route feature class that was calibrated at route endpoints and at intermediate points. The goal for positional accuracy with this data set is 50 feet. Data source is the Linear Referencing System (LRS). The service is data intensive and may render slowly. The layer is LRS derived and refreshed daily. For more information please see the Data Assessment Form.

Mandli 2012 Layers - These data are a snapshot of the asset inventory conducted by Mandli Communications in 2012. It was collected in the summer of 2012 via LiDAR and Photolog imagery. It is not maintained and more current data may be available. These archived data layers include: barriers, bike lanes, billboard assemblies, billboard faces, drainage inlets, intersections, lanes, medians, pavement messages, pavement striping, power pedestals, rumblestrips, shoulders, signal cabinets, signal poles, sign assemblies, sign faces, surface areas, traffic islands, and walls. The data was recollected in the

spring of 2014. If interested in the most current data please search for the asset feature specifically, i.e., 'Barriers.'

Medians - This data displays median locations along state routes. Median descriptive information includes median type, width, traffic island presence and protection presence. Median width value of 999 generally indicates large median great than 300ft. Location information is x, y and milepost. This dataset is often used in conjunction with the barrier and traffic island dataset. MANDLI data was collected in the spring of 2014 via LiDAR inventory. Location information is generally accurate to within 5ft. For more information please see the Data Assessment Form.

Mile Points - This service contains UDOT mile post and tenth mile post data created from LRS. The mile post and tenth mile post data is scale dependent and is only visible at specific scales. Mile Posts in this dataset only appear along state routes. This information is updated monthly. Click on MP for link to Streetview. For more information please see the Data Assessment Form.

Outdoor Advertising - Web data containing Scenic Byway, Fed Aid Primary Routes from 1991, MAP21, National Highway System and Access Category 2006 data. For more information please see the Data Assessment Form.

Ownership Code - Government Ownership of routes. The following owner codes are included in the data: (1) State Highway Agency (UDOT), (2) County Highway Agency, (4) City or Municipal Highway Agency, (62) Bureau of Indian Affairs, (64) U.S. Forest Service, and (66) National Parks Service. This data comes from the Highway Performance Monitoring System (HPMS). This data is refreshed yearly and is current as per the 2013 HPMS submittal. For more information please see the Data Assessment Form.

Pavement Condition - This dataset comes from the Deighton Total Infrastructure Management System (dTIMS) and has historical pavement data from 2004-2012. This section level data are from the dTIMS sectioning table. This layer will be updated yearly as new condition data is gathered. For more information please see the Data Assessment Form.

Pavement Messages - Pavement messages data consists of message location, content and type. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR feature inventory. Location information includes X & Y, elevation, and side of road and mile post. Location accuracy is generally 5 feet or less. For more information please see the Data Assessment Form.

Pavement Striping - This dataset contains pavement striping located along Utah state highways. Descriptive information includes paint color, pattern, and quantity. Location information includes x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

PM Work Plan by Section - Annual Pavement Management Workplan. Data comes from the Operations Management System (OMS). For more information please see the Data Assessment Form.

Power Pedestals - Power Pedestal data consists of location only. Location information includes x, y and mile post. Location information is generally accurate to within 5ft. Information was collected summer of 2012 via LiDAR inventory. This data is best viewed with intersections, signal poles, and signal cabinets. For more information please see the Data Assessment Form.

Roadway Utilities - This dataset contains Roadway Utilities located along Utah state highways. Descriptive information includes utility type (Catch Basin, Manhole, Monuments, Utility, and Other). Also included is location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the spring of 2014 via LiDAR inventory. For more information please see the Data Assessment Form.

Rumble Strip Locations - Rumble strip dataset is a statewide inventory of rumble along all state routes. Descriptive information includes location (x, y & milepost), lane type, surface type, and lane striping associated with rumble strip. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR and Photolog imagery. In general location information is accurate within 5 feet. For more information please see the Data Assessment Form.

Safety Index - The Safety Index offers a statewide comparison of UDOT roadways, taking into account the different traffic patterns and volumes experienced in urban and rural areas. The Safety Index is a combination of four, equally weighted safety analysis sub-scores: Crash Rate Score, Severe Crash Rate Score, Crashes per Mile Score, Severe Crashes per Mile Score. The Safety Index is reported on a 0 to 10 scale, with 10 representing the worst conditions. The data reflect crashes from 2011 through 2013. For more information please see the Data Assessment Form.

Severe Crashes per Mile Score - The Severe Crashes per Mile Score indicates which road segments have the highest number of total severe crashes per mile per year (2011-2013). Severe crashes are crashes that result in a fatality or an incapacitating injury. Severe Crashes per Mile Scores are reported on a 0 to 5 scale with 5 representing the group of road segments with the most severe crashes per mile per year across the state of Utah. (weighted by roadway center line miles).For more information please see the Data Assessment Form.

Severe Crash Rate Score - The Severe Crash Rate Score indicates which road segments have the highest severe crash rate when compared to the statewide average severe crash rate for roadways of similar functional class and traffic volume. Severe crashes are crashes that result in a fatality or an incapacitating injury. The severe crash rate is calculated from the most recent 3 years of data (2011-2013), while statewide average rates reflect 5 years of data (2009-2013). Severe Crash Rate Scores are reported on a 0 to 5 scale with 5 representing the group of road segments with the highest ratio of actual severe crash rate vs statewide average severe crash rate (weighted by roadway center line miles).For more information please see the Data Assessment Form.

Shoulder Inventory - This dataset of shoulder locations in Utah includes descriptive information like width, material, edge type, road location (center, left, right), x and y location, and route and milepost. The width has been rounded to the nearest whole foot for end use purposes. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR and Photolog imagery. For more information please see the Data Assessment Form.

Sign Assembly - This dataset contains sign support type information along all state routes in Utah. Descriptive data includes support type (i.e., double post, signal pole, structure mounted etc.), number of signs on mount, and location. Location information was gathered where the sign support meets the ground at its lowest right point. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR feature inventory. For more information please see the Data Assessment Form.

Sign Inventory - Sign face data includes the standard MUTCD or UDOT sign designation color and description, sign condition (good, fair, poor), and sign orientation (north, southwest, etc.). This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR feature inventory. For more information please see the Data Assessment Form.

Signal Cabinets - Dataset contains signal cabinet location information along state routes. Location information includes x, y and milepost. Locations are generally accurate to within 5ft. Inventory was completed in spring of 2014 via LiDAR and Photolog. This data is best viewed with intersections, power pedestals, and signal poles data. For more information please see the Data Assessment Form.

Signal Poles - Signal Pole assets were located along all state routes and at any intersection. The collection was completed in the spring of 2014 via LiDAR feature inventory. This dataset contains attributes such as pole type, signal type and count. Location information included X & Y, elevation and milepost. The accuracy is generally within 5 ft. of actual pole location. This data is best viewed with other intersection asset data such as signal cabinets, power pedestals, and intersections. For more information please see the Data Assessment Form.

Skid - Skid data is presented as Normalized Point Features and as Surface Friction averaged over traffic sections. Skid data is collected within the calendar year for which it is reported.

Surface Area by Mile - This dataset contains total surface area aggregated by whole mile increments. One surface area is defined as an area of paved surface equivalent to 12 feet wide by 1 mile long (i.e., 7,040 square yards). To calculate the total surface area of a one mile segment multiply the surface area number found in the data pop-ups by 7,040 square yards and convert to your preferred unit of area. This dataset is a Mandli layer. Mandli data was collected in the summer of 2012 via LiDAR and Photolog imagery. For more information please see the Data Assessment Form.

Surface Area by Tenth Mile - This layer contains surface area values, including surface type information, in tenth mile details for the state route system. This layer was collected in the summer of 2012 via the LiDAR asset data collection process. The source of the data is from asset management DEIGHTON system. For more information please see the Data Assessment Form.

Three Year Plan Projects – These are draft data that displays program plan projects for the years 2015 to 2021. The data is under review by project managers. The source system is EPM and the data is refreshed nightly. For more information please see the Data Assessment Form.

Traffic Islands - This dataset displays traffic island locations along state routes. Traffic island descriptive information includes median type associated with island, whether or not the island has protection installed and the width of median where island is present. This dataset is often used in conjunction with the barrier and median datasets. Data layers are Mandli datasets. Mandli data was collected in the spring of 2014 via LiDAR inventory. Location information is generally accurate to within 5ft. For more information please see the Data Assessment Form.

UDOT Commission Districts - Commission District data layer for UDOT. This is a polygon layer that shows transportation commission district boundaries for Utah. This layer is stored in UDOT's SDE. This dataset is updated as-needed. For more information please see the Data Assessment Form.

UDOT LRS Routes - This data service is a GIS representation of the UDOT Route System (main routes, ramps and collectors). Routes are represented as PolylineM features where the m coordinate is in miles. PolylineMs were calibrated at route endpoints and at intermediate points such as state route junctions, bridge decks and other miscellaneous features as described in the UDOT linear referencing system (LRS). The goal for positional accuracy with this data set is 50 feet. This data is refreshed weekly. For more information please see the Data Assessment Form.

UDOT Regions - This data layer contains UDOT region boundary and office location information. The data in this data is stored in UDOT's SDE. It does not have a refresh schedule. The data is updated on an as needed basis. For more information please see the Data Assessment Form.

UDOT Station Information - The station location and station boundary layers in this data are available for download from UDOTs data portal. The data is updated by the regions and is refreshed as needed. For more information please see the Data Assessment Form.

Unified Plan Features – These data display the 2011-2040 Unified Plan. The data includes long-range transportation and transit planning information for UDOT, CMPO, DMPO, MAG, and WFRC. This dataset is static and does not have a refresh cycle. For more information please see the Data Assessment Form.

Urban Code - Large Urbanized Area Code data comes from Highway Performance Monitoring System (HPMS) and is based on census designations for urban and rural. The dataset is attributed to define routes as urban or rural. This dataset is current as per the 2013 HPMS submittal. This dataset is refreshed yearly. For more information please see the Data Assessment Form.

Utah National Highway System - The National Highway System (NHS) includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS was developed by the Department of Transportation (DOT) in cooperation with the states, local officials, and metropolitan planning organizations (MPOs). Please see the Data Assessment Form for more information.

Utah Structures and Bridge Locations - Displays the locations of Utah bridges and structures and includes the following attributes: structure ID, structure name, location, and bridge owner. The dataset is supplied for reference only. The data source is BrM (Pontis) and it is refreshed daily. Please see the Data Assessment Form for more information.

Wall Inventory - Walls dataset is an inventory of walls visible from "dashboard" level of vehicle on state route inventory. Walls below structure for example would not be included this dataset, unless another state route was being spanned by structure. Age is not present in this inventory. Descriptive information includes location, type, side of road and average height from ground. Location information includes x, y and milepost and is generally accurate to within 5 ft. This dataset is a Mandli data layer. Mandli data was collected in spring of 2014 via LiDAR and Photolog. For more information please see the Data Assessment Form.

All Layers by Category:

Asset:
Barriers
Bike Lanes
Billboard Assemblies
Billboard Faces
Bridge Locations
Cattle Guard Inventory
Driveways
Facilities Inventory
Fence Inventory
Highway Reference Features
Intersections
Islands
Lanes
LRS Feature Inventory
Mandli 2012 Asset Layers
Medians
Pavement Messages
Pavement Striping
PM Workplan by section
Power Pedestals
Roadway Utilities
Rumble Strips
Shoulders Inventory
Sign Assemblies
Sign Faces
Signal Cabinets
Signal Poles
Signs Inventory
Structures
Walls

Maintenance:
Station Boundary
Station Location
Surface Area by Mile
Surface Area by Tenth Mile

Pavement:
Airport Pavement Condition
Deflection Data
MML
NHS
Pavement Condition
PM Workplan by section
Skid

Planning:
Facility Type
Functional Class
Long Range Plan
Ownership Code
Urban Code

Project:
ePM Projects
ProjectWise ePM data
Three Year Plan Projects

Reference:
Commission Districts
Highway Reference Features
LRS Routes
Mile Points
Region Boundaries
Tenth Mile Points

Traffic & Safety:
AADT
ATMS
ATR
Crash Rate Score
Crashes per Mile Score
Safety Index
Severe Crash Rate Score
Severe Crashes per Mile Score

Uncategorized:
Outdoor Advertising